CSC 3610 – Project 5

This assignment tests your understanding of asynchronous JavaScript to make an interactive site. You will be creating a weather website.

Page Components

Current Weather Cards

When the page loads you should populate four card with current weather data. One location must be for Lakeland, FL but the other three should be for locations of your choosing. The card title should be the name of the location, the subtitle should be the short weather description and the current temperature. The body of the card should be a weather icon representing the current weather. There should also be a forecast link that can be used to see the upcoming weather forecast.

Weather Forecast Model

When a user clicks on Forecast for a location, they should see a modal pop up that displays the weather forecast for the next seven days for the selected location. The modal should indicate what location the forecast is for. For each day of the forecast a weather icon should be shown along with the high temperature, the low temperature, short description, and projected wind speed. You should match the format shown in the starter code example. Note: the Bootstrap documentation provides some details on how to manage/control a Bootstrap modal component using JavaScript.

Icons

You'll be using the bootstrap icons to display the type of weather on both the current weather cards and on the forecast modal. For simplicity I have determined which icons are used for which types of weather. The ID for the specific weather in question comes from the weather array in the JSON response from the API. Here is the chart for the icons:

ID	Icon
200-232	cloud-lightning
300-321	cloud-rain
500-531	cloud-rain-heavy
600-622	cloud-snow
700-771	cloud-fog
781	tornado
800	sun
801-804	cloudy

Any ID not covered by the table in question should eb represented by the patch-question icon.

Weather API

For this assignment you'll be using the OpenWeather API (https://openweathermap.org/api) to get all your data. You will need to sign up and get your own API key to be able to use the API. The free tier will be more than sufficient for the data you'll need for this project. The two most relevant endpoints are the Current Weather Data endpoint and the Daily Forecast 16 days endpoint. The API's documentation is pretty good and if you want to parse through the resulting JSON data you can log it to the console and look through it easily.

Strategy

While this project isn't a large amount of code, it will take some time to get all the little parts working together correctly. I strongly suggest picking one small piece at a time and getting it working. Make good use of functions as needed. Think about which elements you need to manipulate and what changes need to happen with each event.

To Earn a C

- All weather cards working properly and pulling database from the API
- Card data is correct and matches example formatting

To Earn a B

- Complete all C requirements
- Modal properly opens and closes for forecasts
- Forecast model includes all correct information and matches example formatting

To Earn an A

- Complete all B requirements
- Weather icons correct for all parts of the page
- Cards and modal should not be visible until after all data has been populated, so not data flipping visible on page

Submission

To submit your work, you will need to ZIP up all of the content, including any images and subdirectories you have. Be sure to include any provided items from the starter code as well. You will submit your file through the portal. Please let me know if you have any questions.